

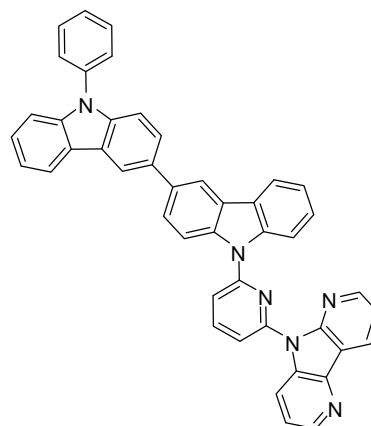


Constructing Diazacarbazole-Bicarbazole Bipolar Hybrids by Optimizing the Linker Group for High Efficiency, Low Roll Off Electrophosphorescent Devices

Product Specifications

LT-N4147 NCzmPy2Cz

Name.	9-(6-(5H-pyrrolo[2,3-b:4,5-b']dipyridin-5-yl)pyridin-2-yl)-9'-phenyl-9H,9'H-3,3'-bicarbazole
CAS No.	2041519-51-9
Grade	Sublimed, >99 % (HPLC)
Formula	C ₄₅ H ₂₈ N ₆
Molecular Weight	652.74 g/mole
Absorption	300,329 nm (in CH ₂ Cl ₂)
PL	385,402 nm (in CH ₂ Cl ₂)
HOMO/LUMO	-5.54 eV/ -2.16 eV



* Reference: *Dyes and Pigments* 136 (2017) 54-62

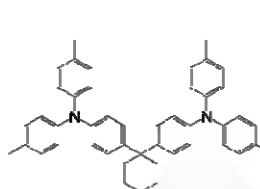
Features

- The NCzmPy2Cz hosted device has achieved a maximum EQE of 20.0 % with an extremely low efficiency roll-off of 2.0 % at the 1000 cd/m², and a current efficiency of 42.8 cd/A, a power efficiency could of 39.1 lm/W. And the structure adjustment the bicarbazole or other donors and acceptors could generate highly promising hosts for the future blue PhOLEDs.

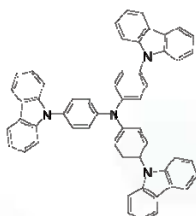
Device Application

The Blue TADF Device:

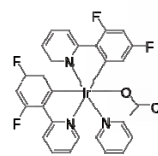
ITO/ MoO₃ (10 nm)/ TAPC (40 nm)/ TcTa (5 nm)/ NCzmPy2Cz:FlrPic (20 nm, 8 wt%)/ TmPyPB (40 nm)/ LiF (1 nm)/ Al (100 nm).



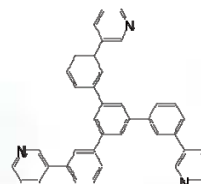
LT-N137 TAPC
MoO₃ = LT-E003



LT-E207 TcTa
LiF = LT-E001



LT-E607 FlrPic
Al = LT-E005



LT-N863 TmPyPB

Materials are used by qualified for testing and research only, there are not guaranteed in patent contention by customer use.

Head office: 31F-5, No. 99, Sec. 1, Xintai 5th Rd., Xizhi, New Taipei City 22175, Taiwan, R.O.C., TEL: +886-2-2697-5600, FAX: +886-2-2697-5601.

Factory I: 2F, No. 21, R&D Road II, Science-Based Industrial Park, Hsin-Chu 30076, Taiwan, R.O.C., TEL: +886-3-666-3188, FAX: +886-3-666-9288.

總公司: 22175 新北市汐止區新台五路一段 99 號 31 樓之 5, 電話: 02-2697-5600, 傳真: 02-2697-5601.

新竹廠: 30076 新竹科學工業園區研發二路 17 號 2 樓, 電話: 03-666-3188, 傳真: 03-666-9288.

E-mail: sales@lumtec.com.tw; Web: <http://www.lumtec.com.tw>